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ABSTRACT

Reported are proceedings and results from a special study institute (1971) which examined competency-based programing to train teachers of the crippled and otherwise health impaired (COHI). Findings and recommendations of a previous conference (West Point, 1970) are noted. Common themes of conference papers are given such as the need for change in the procedures used to prepare teachers in COHI programs and the need for procedures based on well defined behavioral objectives. The four-step process used by the conferees in developing behavioral objectives is described, applied to two competencies, and evaluated. Detailed are 27 objectives and performance criteria developed by conference work groups for training teachers in the areas of assessment, instructional approaches, and coordination of services. A 3-year plan for improving teacher education through the identification of teacher competencies with behavioral objectives is outlined from phase 1 (describing competencies) to phase 5 (implementation in regular classrooms). Listed are nine final conference recommendations such as the need for review of competencies by state and regional panels. Four general session presentations (covering topics such as implementation and evaluation of competency-based models), a list of institute personnel, and a brief explanation of the working format of the institute are appended. (LS)

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Professional Preparation of Educators of Crippled Children:

Competency-Based Programming

Report of a Special Study Institute
held under the auspices of
the U.S. Office of Education*,
Teachers College, Columbia University,
and the University of Arizona
at Tanque Verde Guest Ranch, Tucson, Arizona,
December 8-11, 1971

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Acknowledgment

The Special Study Institute of December 8-11, 1971 resulted directly from proposals of the National Advisory Committee and from the response of the Department of Special Education at the University of Arizona, who implemented their suggestions. To the sponsors of this conference and to the participants, who came from all over the country to share their concerns about upgrading COHI programs through more systematic teacher preparation, the editors of this report are especially indebted.

Dr. Walter Olsen, the Institute's co-director, served as local arrangements chairman and host, and participants attributed much of the success of the conference directly to the social and physical setting provided at the Tanque Verde Ranch. Dr. Donald Stauffer's contributions on the local scene, especially in light of unanticipated travel and scheduling turmoil because of a record-breaking snowstorm in Tucson, were evidence of his fine organizational abilities.

The presentations by the general session speakers were deeply appreciated for the way they provoked discussion, clarified the Institute Objectives, and facilitated the formulation, ultimately, of the conference conclusions.

Among the discussion group participants, the editors are particularly grateful to the discussion group chairmen who effectively harmonized the diverse personal 'entry behaviors' of the participants in relation to the tasks assigned the conference. Without the superb teachership of the chairmen, the objectives of the Institute could not have been met. That the essence of the group discussions was preserved is owing to the special educa-

tion students who served as recorders under the direction of Dr. Herbert Rusalem. The editors leaned heavily upon their contributions in the preparation of this final report.

A great debt is owed Dr. Herman Saettler and the Bureau for the Education of the Handicapped of the United States Office of Education for making the Institute possible. Dr. Saettler's guidance and interest have permitted the continuation of this search for answers to some of the compelling questions which presently preoccupy those concerned with improving the education of children who just happen to have physical problems.

Introduction

The education of children crippled or otherwise health impaired has been weighted traditionally toward giving protection and comfort, and has relied upon medical direction. Intervention has for the most part depended upon medical adjustments, environmental modifications, and teacher ingenuity. Little systematic provision has been made for the increasingly severe educational problems that, it is now realized, often accompany physical disability. Placement *per se* – whether at home, in a hospital or convalescent home, or in a special or regular classroom– provides little indication of educational needs, and the happenstance of school achievement can often be considered a form of 'disjointed incrementalism,' a matter of chance 'goodness of fit' between the child's functional level and the instructional strategies employed.

The Special Study Institute at the Tucson conference was intended to permit, through debate, the actual formulation of goals for teachers working with the crippled or otherwise health impaired wherever they might be. The Conference leadership sought to have the participants assess pupil needs, define pupil behavioral objectives, and establish both teaching procedures and criteria for the evaluation of teacher performance. This was done in a way that represented, for many participants, a movement away from what might be called 'homeostatic constancy.' As anticipated, resistance was encountered among some of the participants, a few of whom even seemed threatened by the new procedures. Yet, all those who attended the Conference were motivated to learn more about the new competencies required.

It had been anticipated that some forces external to the discussion groups would help to bring this action

about. The keynote presentations of Kenneth Wyatt, John Potts, Thomas Snyder, and Timothy Nugent challenged the assembled body, stirring up memories and unspoken dissatisfactions. The immense energy that was released in the discussions derived in no small measure from a sense of discomfort and even anger that at times permeated these proceedings. The social environment also contributed greatly: the setting, at the Tucson ranch, away from home, with colleagues who wished to share in new professional experiences. It had been expected that a fairly comprehensive recounting of specific competencies unique to the education of children crippled and otherwise health impaired would result from this Conference. Participants did develop skills in formulating behavioral objectives and performance criteria, and there emerged sample items upon which subsequent work on competency-based curricula can be done. Reportedly, on later inquiry, such objectives have been specified for various teacher education institutions represented at the Conference. As yet, however, no evidence of the results of actual program change or implementation has been forthcoming.

The Conference's activities were very specifically focused, and the limitations of such specificity are clearly recognized in the light of obvious gaps in present knowledge about the characteristics of the learners and the complex learning process. So are the limitations in the ability to order, in a decisive way, all the facts presently available. This conference merely represents a starting point in the definition of the specialized knowledges and skills required by educators of children with physical handicaps. The affective determinants of learning and the teacher-student interaction also remain to be conceptualized.

The Conference in calling for a new effort to identify, classify, and systematize elements of instruction in COHI programs, would not discard traditional forms of organization, but would ask that persisting institutional structures be critically examined be they college courses, credit hour requirements, or certification procedures. Continuing dialogue about preparation programs is imperative if teachers are to meet the need of these children and the standards of their parents and the community at large.

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Competency-Based
Programming

Background of the Conference

In the belief that the field of educational service to the crippled and otherwise health impaired (the field of COHI) had reached a point of crisis, the United States Office of Education and Teachers College, Columbia University conducted a Special Study Institute on Professional Preparation for Educators of Children Crippled or Otherwise Health Impaired at the Hotel Thayer, West Point, New York, on December 9-12, 1970. This conference addressed itself to a series of critical issues relevant to the future of COHI as a field of study. Questions asked included the following:

What are the parameters of this field and who constitutes its target population?

How can continuing and comprehensive education be assured to these children?

What are the conditions that favor their placement in regular classes or, conversely, in special classrooms?

How can school-based programs be best coordinated with community-based programs for these children?

What factors should be considered in fostering more effective use of interdisciplinary resources?

What screening procedures should be used with infants and young children to insure proper educational planning and school placement?

Aside from the need for particular physical environments and special transportation, what other factors are relevant to the effective participation of such children in regular classrooms?

> What are the most promising practices relating to the education of children who are crippled or otherwise health impaired?
>
> How should educators provide for these children and how can they be made accountable for doing so?
>
> How does the preparation of teachers of children in COHI programs differ from that of other teachers in the special education field?
>
> How may college teachers and administrators in the field be trained?
>
> What are the role of the Office of Education and other public and voluntary agencies with respect to these children?

These questions indicate the scope of the problems confronting educators and others in service to children who are crippled or otherwise health impaired. Administrators and teachers have devoted years to the development of practice without adequately analyzing it, and it is difficult to forsee the next steps in the development of the field.

Thus the West Point meeting sought to describe past practice, identify current controversies, suggest methods for their resolution, and make specific recommendations to educators, thus strengthening the field of COHI and enhancing the quality of service to the children involved.

Kenneth Wyatt, formerly Chief, Special Learning Problems Branch, Division of Training Programs, Bureau of Education for the Handicapped, U.S. Office of Education, made the keynote address at West Point. He presented the following charge to the conferees:

> You, as conference participants, have been called into provide consultation as to the condition (of the field of COHI). . . We would like you to prescribe treatment. . . . The outcomes of this conference will have a significant influence on the direction and the character this area assumes in the future.

The findings and recommendations of the West Point conference follow in outline. They are presented in full in *Professional Preparation for Educators of Crippled Children: Report of a Special Study Institute*, Frances P. Connor, Joan R. Wald, and Michael J. Cohen, eds.

(New York: Teachers College, Columbia University, 1971).

1. COHI programs are basically directed to children who, as a result of permanent, temporary, or intermittent medical disabilities, require modification in curriculum and educational strategies. The conditions of growing up as an 'exceptional' child often impose secondary emotional disabilities, which, in combination with sensory and perceptual disabilities, require special educational interventions.

2. A continuum may be visualized as consisting of a) children ready for the regular school program b) children in special classes c) children whose handicaps preclude placement in any class.

3. There are many children for whom successful placement in a regular class can be achieved by environmental intervention: special transportation, prosthetic devices and supports, and removal of architectural barriers.

4. Early educational intervention is considered of paramount importance to the development of these children and will require parent education and the use of the child's home as "learning environment" as well as curriculum and classroom teaching strategies that are suitable for handicapped young children.

5. Work with teenagers presumes professional cooperation with vocational education and vocational rehabilitation personnel.

6. The reduction of educational disadvantage and the preparation of the child for functioning within settings accomodating disabled and non-disabled children needs to receive a high priority in special education programs and provide a framework for selecting specific educational objectives, making educational placements, and planning instructional methods and materials.

7. For "normally learning" crippled children to be served adequately in settings, communication, cooperation, and common understanding of the children will have to be established between mainstream educators and special educators.

8. Skills needed by teachers of COHI children could be characterized as diagnostic, instructional, and administrative, relating to coordination of services.

9. Professional ability to cope with the instructional problems of children in COHI programs is better developed than are strategies for dealing with the problems that result from disturbed interfamilial relationships, limitations in physical dexterity, mobility, and vitality, and experiental deprivation.

10. Training programs beyond the Master's level should balance disability and functional specializations with broader experiences in general and special education and include a common COHI core with specialization in such areas as administration college teaching, and research.

11. New teacher education models are needed that place less stress upon accumulating academic classroom hours and more upon extended supervised field experiences, individualized study, and students demonstrating their competence as special educators through performance.

In general, it was concluded that the instructional system needs to be responsive to the multiple disabilities of the child and focused on individually prescribed *educational* objectives. This presumes cross-categorical efforts across related disciplines as well as within the discipline of special education itself. Skills and knowledges necessary in teaching were identified, and the need for further specificity of content and development of competency-based teacher training programs was also recognized.

Finally, the West Point conferees made specific recommentations to the United States Office of Education. It suggested that the Bureau for the Education of the Handicapped take into account institutional, regional, and state differences in outlook, needs, and programming in developing its relationships with colleges and universities providing training in the field of COHI. The Office was also urged to adopt 'visiting scholar' programs through which training institutions could invite distinguished educators to work with their faculties and upgrade curricular offerings. Conferees also expressed the hope that incentives would be provided to encourage innovations in teacher training, as well as long-range research and planning. It was suggested, too, that the Office of Education sponsor additional conferences in order that the work begun at West Point be continued.

Outcomes of the West Point meeting could be noted almost at once: systematic communication about the

dominant issues in the field, the definition of issues in COHI programs more sharply and more clearly than before. Through increasing sensitation to the issues confronting COHI program makers there emerged a network of persons with common interests who began to address themselves to common problems: professional identity, teacher education, and research. A dominant theme was the need to continue the work initiated at West Point and to develop a well structured national effort that would give form and substance to the activities of COHI program leaders as they worked to strengthen the field. Follow-up meetings were repeatedly requested to consider further the issues raised at West Point: the need to develop competency-based definitions of the role of the educator in COHI and the need to spell out more viable undergraduate and graduate teacher education programs based upon such competencies. These expressed needs were reviewed by members of the West Point Conference National Advisory Committee. Desirous of maintaining the momentum that had been generated there, the Committee recommended that a second meeting of leaders in COHI be planned for 1971 with the support and participation of the Bureau for Education of the Handicapped, United States Office of Education. Seen in retrospect, the exploratory West Point Conference had far exceeded the initial expectation. It had served the purpose of galvanizing teachers and administrators into a working unit prepared to confront vital issues concerning the education of the crippled and otherwise health impaired. Out of the initial explorations at West Point came the two-pronged purpose of the Tucson conference:

1. To define processes for establishing behavioral objectives and identifying teacher competencies in COHI programs.

2. To develop a set of specific long-range recommendations that would improve training in this field.

Thus, the Tucson conference may be viewed as a link in an ongoing chain of events which hopefully will result in the development of clearcut goals for the field, specified procedures for achieving these goals, and a means for continually evaluating progress toward these

goals. Obviously, all of this cannot be achieved through a single short-term conference. However, it was recognized that the Tucson meeting could be of as much importance for special education as West Point had been, and that the spillover from the Tucson conference could be even more important to the field than the Conference itself. In brief, the expectation of the National Advisory Committee was that the Tucson conference would maintain the momentum of West Point, taking the field further along toward the emergence of a strong and directed professional effort to improve services to crippled and other health impaired individuals.

Keynote of the Tucson Conference

The need for continuing dialogue within the field was acknowledged by the United States Office of Education and funds were made available for a second conference held in Tucson, Arizona, in December, 1971, under the joint auspices of the University of Arizona and Teachers College, Columbia University. A meeting of the National Advisory Committee was conducted in September, 1971, in Tucson, Arizona, the proposed conference site. This meeting established the objectives of the Tucson conference and developed its program. The Committee selected conference speakers and leaders, determined roles for the participants, and provided for evaluation procedures. Finally, it authorized various specific actions to implement the plans. Additional support was stimulated in the group that had attended the first conference. Now having acquired a sense of their identity as a group, they approached the conference of December 1971 with defined purposes and a more organized approach to the problems of the field.

The charges to the Conference were contained in a pair of complementary papers. In his keynote speech (see Appendix A), Kenneth Wyatt set the tone for the conference, indicating that special education no longer was immune to the accountability measures that are being applied to the other sectors of education in the United States. He implied that special education already was being called upon to justify its approaches to the problems of exceptional children and to demonstrate its impact upon their education. In view of the rising tide of controversy swirling about categorical approaches to the problems of exceptional children, Wyatt suggested that special education, especially the field of COHI would be expected to establish behavioral objectives for its tar-

get population and for the training of those who will be teaching them. Accordingly, teacher education probably would be required to adopt clear cut, measureable standards of performance. From the point of view of the field, this would make necessary the description of teacher competencies unique to teaching youngsters in COHI programs. Otherwise, it will be difficult to justify the continued existence of the specialization.

In developing a similar theme, John Potts (see Appendix A) noted that a competency-based approach to teacher education is a logical outcome of a growing national concern about performance of educators professionally prepared by colleges and universities throughout the United States. He suggested that teacher training institutions will be required to establish programs that can be demonstrably related to on-the-job performance. Potts also informed the conferees that, in keeping with the trend toward accountability, a model of periodic recertification accompanied by continuing education would be adopted by the Arizona State Department of Education. He concluded by saying that unless teacher education fields such as COHI begin to focus upon the products of their training process (i.e., the emerging teachers), society may find other means for managing the training function.

These complementary papers served as logical take-off points for the Conference. Both suggested that the relatively vague methods of structuring teacher education programs and assessing teacher performance prevailing in COHI were out of step with the movement towards accountability that is permeating American education today. Both speakers indicated that the trend is toward developing competency-based teacher education models which have specific behavioral objectives as a core. The development of objectives tends to give both the teacher and the training institution clear cut, understandable, and measurable targets. Equally important, this approach enables institutions, funding agencies, and the public to assess the degree to which the training institution is accomplishing what it sets out to do.

In her charge to the Conference during the opening session, Frances P. Connor put these issues into sharp focus in the form of three conference objectives:

1. To review and refine teaching and leadership competencies developed in the 1970 West Point meeting.

2. To recommend specific means through which special educators in the field of COHI acquire these competencies.

3. To develop recommendations for improved competency-based models for teacher education.

Summarizing their recommendations, Wyatt, Potts, and Connor submitted their challenge to the participants.

Can a series of behavioral objectives unique to COHI be established that, in addition to those it shares with general education, mark it as a viable specialty that merits public support and extensive funding?

Can such behavioral objectives be related to teacher competence in the field so that professional training programs will be made more relevant to the demands of the actual teaching situation?

Can assessment procedures be developed by the center of teacher preparation for COHI programs to ascertain the extent to which the stated behavioral objectives are being achieved by the students they serve?

Can the teacher education programs developed through a teacher-competency model change as educational and social conditions change so that they can continue to be responsive to the needs of a society and a school program that is constantly in flux?

Timothy J. Nugent, the final speaker, commented on the gap that exists between the development of teacher competencies in training programs and the use of these competencies in field situations. He emphasized the need for implementing teacher training behavioral objectives in actual field practice. Nugent suggested that if behavioral objectives are to be met, preservice practicum experiences will have to be strengthened for specialists in COHI. In this regard, he recommended the incorporation of practicum experiences into the prospective teacher's first year of professional preparation, thus giving the individual an opportunity to measure himself against job

requirements and to make early experience-based decisions concerning his readiness for a career in COHI.

In his consideration of competency-based teacher education programs, Nugent argued for carefully planned, long-range efforts rather than crash programs. He suggested that teacher education should span many years, including both preservice and inservice experiences. In this context, there is a strong indication of the desirability of a continuing education model in which teachers are re-evaluated and recertified periodically (also see Potts, Appendix A). Nugent expects that the development of improved teacher preparation programs in COHI, resulting in improved teacher performance and professional pride on the part of teacher educators, will result also in greater respect for the field on the part of the public.

The four speakers independently pointed to the following conclusions:

1. There is a need for change in the procedures that currently are being used to prepare teachers in COHI programs.

2. The rather ill-defined rationales and procedures now in use should be supplanted by ones that are based upon well defined behavioral objectives.

3. The achievement of these objectives should result in the emergence of larger numbers of competent teachers to serve COHI programs.

4. The selected behavioral objectives can be attained most readily through competency-based teacher education programs that lend themselves to assessment and accountability measures.

5. In developing competency-based teacher education programs, COHI can establish its unique contribution to special education, and education in general, and can give teachers a sense of its identity and professional affiliation that provides them with motivation, additional skill, and security in their work.

6. A sense of purpose and professional identity must be apparent in the educators of teachers if their products (new teachers in COHI) are to acquire it.

7. Competency-based teacher education programs do not necessarily begin with entry into a college or university training

program. The process is almost lifelong in development and should extend into the field of practice where teachers are having day-to-day experiences with children. The continuing education aspect of the process should prepare teachers to perform effectively on a continuing basis and to meet re-assessment and recertification requir ments.

8. The changes that are needed in the field probably will flow out of the stimulation provided by its national leadership through conferences similar to the West Point and Tucson meetings, and hopefully, more formal national arrangements, such as an ongoing leadership training institute.

Developing Behavioral Objectives: Process and Problems

Many of the Conference participants had had previous experience in developing behavioral objectives for teacher education programs in COHI. However, this experience had been gained informally in response to the need to set up such objectives for ongoing training situations in COHI. Consequently, the participants generally felt a need to improve their skills in this area. This was attempted at the Tucson conference through a training demonstration conducted by Thomas Snyder. Since training in the preparation of behavioral objectives requires extended periods of intensive instruction, the brief program conducted by Snyder was regarded as a demonstration designed to initiate further study by the participants rather than a full training program. In effect, Snyder's short-term instruction introduced the conferees to a set of concepts to the problem of upgrading teacher training programs in COHI.

Conceptually, the development of behavioral objectives can be viewed as having their origin in educational imperatives that become translated into educational program components. In such an ideational structure, the program evolves from rational concepts of the mission of education expressed in terms of measurable and identifiable behaviors which are to be sought in the target population (in this case, teacher trainees in the field of COHI).[1] Both in the process of evolving the program and in its constant reappraisal and renewal, two sets of performance requirements interact and provide feedback to each other:

1. teaching behaviors are congruent with the performances required to achieve the behavioral objectives.

2. trainee performances are in response to the learning requirements established to attain the stated behavioral objectives.

Focusing upon the writing of suitable behavioral objectives, in general, Snyder indicated that some words in the English language are more precise than others and thus can be used more definitively to state performance objectives and criteria against which performance can be measured. Snyder cited an example of such language in an excerpt from Hemingway's *Old Man and the Sea* This citation was used to underscore how precision of language can be achieved without sacrificing warmth and color.

> "Yes," he said, "Yes," and shipped his oars without bumping the boat. He reached out for the line and held it softly between the thumb and forefinger of his right hand. He felt no strain nor weight and he held the line lightly. Then it came again. This time it was a tentative pull, not solid or heavy, and he knew exactly what it was. One hundred fathoms down a marlin was eating the sardines that covered the point and shank of the hook where the hand-forged hook projected from the head of the small tuna. The old man held the line delicately and softly with his left hand unleashed it from the stick. How he could let it run through his fingers without the fish feeling any tension. "Fish," he said, "I love you and respect you very much. But *I will kill you dead before this day ends. . . .*"

Through developing a hypothetical objective, Snyder presented the following questions as guidelines in the development of behavioral objectives.

What is to be accomplished?	Conduct an interview
By whom?	Self.
When or for how long?	Weekday evenings.
Under what conditions?	Comfortable, private.
With what tools or materials?	Standard equipment.
To what extent or degree of accuracy?	As required by interviewee.
Judged how?	To mutual satisfaction.
Special features?	Red wine and incense.

With Snyder's help the conferees applied a four-step process to two of the competencies delineated during the West Point conference.

1. The Original Behavioral Objective Understanding of terminology by paraeducational specialists, therapists, medical personnel, vocational counselors, and social workers.

Simplification Understanding of terminology used by medical personnel.

Refinement

What is to be accomplished?	Medical terms are defined.
By whom?	Trainee in COHI.
When or for how long?	Weekly staff meetings.
Under what conditions?	When applied to populations served by COHI programs.
With what tools or materials?	Medical histories and dictionaries.
To what extent or degree of accuracy?	To standards set in Special Education 500.
Judged how?	Examination of intern logbook
Special features?	Intern keeps log of new terms.

Performance-Based Objective The trainee will define medical terms when applied to pupils during the weekly staff meetings, using medical histories and dictionaries. Evaluation of the intern's logbook of new medical terms will be based on standards set in Special Education 500.

2. *The Original Behavioral Objective* Assisting parents in handling their own attitudes (e.g., over-protection) and the attitudes of other nondisabled (e.g. fear, rejection),

including the regular classroom teacher, toward their children.

Simplification Assisting parents in handling their attitudes.

Refinement

What is to be accomplished?	Assists parents in accepting handicap.
By whom?	Teacher in COHI program.
Under what conditions?	In parent conferences.
With what tools or materials?	Videotapes of child in class.
To what extent or degree of accuracy?	Three or more verbal expressions by parents.
Judged how?	As judged by a conference observer.
Special features?	Observer selected by teacher.

Performance-Based Objective During the child's assignment to the class, the teacher in COHI will assist parents in accepting their child's handicap, using videotapes of the child in class during parent conferences. The criterion for success will be three or more verbal expressions of pleasure by parents as judged by a conference observer who will be selected by the teacher in COHI.

As discussion groups worked to refine the competencies specific to COHI, they generated a list of conditions felt to facilitate the writing of behavioral objectives. Most often mentioned were:

Conducting general initial discussions within a group before attempting to write the objectives. Such discussions encourage the participants to define terms, address issues, and establish boundaries.

The provision of time for each participating individual to write behavioral objectives on his own.

Subsequent utilization of very small group (of perhaps three persons each) to review individual work.

Allowing for 'free association' type of experience in which the development of one behavioral objective leads naturally into the next.

The groups also reported some of the difficulties experienced during the development of objectives:

Selecting words that clearly express the idea in an integrated statement.

Analyzing teacher competencies in the fashion suggested at the Tucson conference.

Achieving a balance between breadth and specificity in the development of behavioral objectives.

Arriving at unanimous agreements about the meanings of certain terms (e.g., "supportive services").

Avoiding emphasis on more easily managed academic variables, to the neglect of affective variables.

Deciding whether behavioral objectives should relate exclusively to educational situations or to medical and psychometric as well.

Stating behavioral objectives without also stating subobjectives and facilitating objectives.

Distinguishing differences between behavioral objectives and instructional objectives and, where a difference exists, knowing what the difference is.

In spite of these difficulties, the participants understood the need for objectives to replace ambiguous ones in training situations. Thereby they had taken the program construction and evaluation. Through a more straightforward use of language, these educators were able to begin to communicate with others about ongoing programs and developing programs, set program requirements, evaluate outcomes, and redesign components found to be ineffective.

Teacher Competencies:

Performance-Based

Training Objectives

One of the primary tasks of the conference was to describe the behavior expected of teachers in COHI programs. One way this was attempted by the conferees in the relatively brief time allotted to them was participation in group sessions lasting several hours. In one session, the conferees began with the lists of competencies developed at West Point and rewrote these skills and knowledges in terms of performance-based behavioral objectives. Because the populations discussed differed in age and degree of disability, the outcomes varied from group to group, and so did the detail, completeness, scope, and sophistication of the recommendations, although, there were cases in which the work of one group duplicated or overlapped the work of others. In each group, a serious attempt was made to describe objectives in meaningful behavioral terms. Those reported here illustrate the progress made by the groups in a limited amount of time and are not to be considered definitive statements. The following lists reflect competencies that distinguish the teacher in COHI programs from other teachers in the regular classroom or the special education field. The original lists of competencies were expanded in an attempt to develop more specific recommendations for training. The work groups made selections from these lists. The areas of *assessment, instructional approaches,* and *coordination of services* under which the specific objectives are listed are not mutually exclusive, and many of the performance objectives that follow might be placed in more than one category.

AREA 1. ASSESSMENT

Assessing the developmental status of children in the cognitive, motor, and affective domains, using standard procedures, adapting existing measures, or developing new ones, as required.

Objective 1. The trainee will be able to assess motor development as manifested by classroom activities requiring movement of body and limbs.

Performance Criteria. The trainee will pass 80 percent of the items on a test of Gesell's developmental stages. The trainee will be able to cite at least three journal articles related to the motor development of these children. The trainee will list five developmental survey instruments and the age range of each one. The trainee will correctly administer at least three tests of motor development to standards set in Special Education 6400.

Within ten weeks after completing a course, the trainee will assess motor development through the application of the Gesell scale to three children in the field and at least three children seen on videotape. The trainee's rating will be compared to an expert's rating. The ratings must agree within two months.

Objective 2. Each trainee in COHI will demonstrate that he can assess the developmental status of an individual child, relating that assessment to the development of a real-life plan for the use of leisure time. He will consider the child's areas of interest and relate them to the degree of physical limitation manifested by the child.

Performance Criteria. The trainee will be considered to have been successful if 70 percent of any class group express satisfaction with their own use of leisure time. The trainee will have previously specified which comments can be accepted as expressing evidence of satisfaction.

Objective 3. The trainee will be able to use, and to modify, criterion-referenced tests for three different children and to determine their present level of functioning in each of three major academic subject areas.

Performance Criteria. The trainee will identify a specified number of cases, observing both filmed and actual field situations, where modifications have been made in assessment procedures. A recognition of 90 percent of the cases presented is required. The trainee will also be able to identify a specified number of tests and materials which need modification when applied to mildly disabled children. Through visual and tactile examination of a specified number of adapted materials, the trainee will list the particular individual needs met by the adaptations, and will be successful in 90 percent of the cases.

In a supervised practicum, the trainee will administer modified tests for a specified number of pupils as directed by the trainee trainee's supervisor, who will observe this administration. The criterion of success is the extent to which the trainee carried out the supervisor's directions.

The trainee will modify and use assessment tools with a specified number of pupils without supervision in the practicum situation. Sessions will be videotaped. Three independent observers selected from staff and peers of the trainee must identify the decisions as being correct 90 percent of the time. During a two-week portion of the training program, the trainee also will, in a one-to-one testing situation in the classroom, modify three performance tests measuring nonverbal intelligence for pupils not from English-speaking backgrounds. These pupils will have limited manual performance ability. The trainee's supervisor will determine the extent to which the pupils are permitted to perform using the modes of response available to them.

Objective 4. During their practicum, trainees will interpret and analyze developmental case studies. They will list the child's strengths and weaknesses and enumerate the factors that might be responsible for slow or deficient school progress.

Performance Criteria. The supervisor will outline an optimum interpretation of the case study as a standard for judging the trainee.

AREA 2. INSTRUCTIONAL APPROACHES

Instructional Intervention

Elevating the child's level of academic, physical, or social functioning through modifying the behavior of the child or the family through appropriate educationally oriented therapeutic interventions.

Objective 1. To induce improvement in the physical behavior of children in defined task-oriented situations.

Performance Criteria. After defining in writing the nature and degree of behavioral change expected in the child, the trainee will plan and carry out a series of interventions in a task-oriented situation. Repeated observations of the child in this task-oriented situation will follow the intervention. The expectations of change set by the trainee together with the supervising teacher will be used as a standard against which actual change in the child will be measured.

Equipment Modification

Adapting or newly developing equipment and materials to meet the child's needs and conform to his limitations.

Objective 1. The trainee will select and employ educational equipment appropriate for a pupil who cannot use either hand for typing or writing out assignments, to be used during regular school periods for preparation or instruction. Techniques utilized may include for example, either modified typing with interfaces or guards, modified physical responses from the pupil, or a combination of both.

Performance Criteria. This student will be expected to develop his skills to the point where he independently initiates communication and subsequently uses them in satisfying academic requirements. For example, a child may begin by initiating unintelligible speech, and then speak satisfactorily in an academic situation.

Objective 2. The trainee will be able to select for student use specialized instructional devices such as: page turners, pointers, lap boards, typewriters, and templates.

Performance criteria. Performance standard determined by the institution, evaluated to meet the criteria of the supervisor.

Objective 3. The trainee will be able to adapt for student use and demonstrate teaching materials such as: enlarged books, communication boards, captioned films, talking books, and language boards for use by children in COHI programs.

Perofrmance Criteria. Performance standard determined by the institution, evaluated to meet the criteria of the supervisor.

Objective 4. Given a *quadruplegic* adolescent confined in a wheelchair, the trainee will set up for use special equipment needed to permit usual activity in the classroom.

Performance Criteria. During the practicum, the trainee will select equipment with which the adolescent will initiate seated activity in the classroom. The achievement of the objective will be determined by the teaching supervisor through observation.

Objective 5. The trainee, when given a description of a child with a specific handicap condition, will list adaptations of available or specialized equipment needed for this specific child. He will also list where or how this equipment can be obtained. Justification for his choice will be stated for each piece of equipment.

Performance Criteria. Appropriateness of choices will be judged by instructor.

Objective 6. The trainee will modify the learning environment by adapting materials, curriculum, and physical appliances in accordance with each disability evidenced by pupils in that class.

Performance Criteria. The trainee will observe the individual child and assess his motor skills.

On the basis of the above, the trainee will determine whether he can teach the child skills he lacks or find some way to prosthetize that movement.

The trainee will select and try out specific strategies, materials, and/or equipment (e.g., adaptive equipment) and measure their effectiveness by resultant behavior change.

Evaluation will be based upon standards set in a designated special education course.

Modified Physical Education

Including physical education and recreation in the total program for children, crippled and otherwise health impaired.

Objective 1. The trainee will develop and implement physical education and recreation programs for crippled children through classroom and practicum experiences. Each trainee will become familiar with ten techniques in these fields and be able to demonstrate at least one modified technique in an actual class situation.

Performance Criteria. The trainee will modify and apply a selected physical education and recreation rechnique with the approval of the cooperating teacher and the university supervisor, who will observe the trainee as he works with a child for at least two weeks. Performance will be judged according to standards set in a designated special education course.

Objective 2. During his internship, the trainee will adapt the activity of softball to the program for crippled children, utilizing soft old softballs, bats, and a battery tee so pupils can develop increasingly complex movements.

Performance Criteria. The trainee's observed performance of the following will be judged by skilled special educators and physical education specialists. With a softball and/or a bat the child will be helped to hold a softball, throw the ball, catch the ball, and hold and swing the bat. In playing a game such as *tee*, the child will be helped to catch a ball, throw a ball accurately, run the bases on a softball diamond,

field a ground ball, bat a softball from a batting tee, and learn the rules of softball. In playing a game such as *hit the bat,* the child is helped to hit a softball, catch a ball, and roll the ball and hit the bat. The child is taught to play a game such as *long ball.*

Objective 3. The trainee will be able, in both simulated and real educational settings, to design and implement activities for children at both the active and the passive levels. The choice of activities will be based upon the children's interests and physical needs. Games and equipment will be adapted for a number of real and simulated educational settings.

Performance Criteria. As determined by the institution, evaluated to meet the criteria of the supervisor.

Objective 4. The trainee will be able to appropriately introduce such activities as exercising on mats (general range of motion exercises, home therapy), fine motor coordination exercises (free movement to records, singing games with motions), competitive games (shuttle relays by youngsters involving their mode of locomotion, throwing games), aquatics (founded on drownproofing and utilizing specialized flotation devices).

Performance Criteria. As determined by the institution and as evaluated by the supervisor.

Objective 5. The trainee in early childhood programs will demonstrate, prior to receiving certification the ability to plan an instructional program based upon measures of motor development which are designed to facilitate acquisition of specific motor skills not previously in the child's behavioral repertoire.

Performance Criteria. Specific response objectives will be clearly identified for eight children. The trainee's ability to author an appropriate program will be based upon each child's realization of 80 percent of the objective.

Safety

Providing a safe, healthful, and physically adequate environment for the child in all aspects of his program.

Objective 1. The trainee will be able, in any educational situation, to provide seating appropriate to the child's physical stature and unique physical disability; position the child, physically on the basis of information from parents, therapists, and the child himself, using prescriptions and technical aid devices available; operate, adjust, mechanically maintain, and demonstrate such mechanical devices as wheelchairs, body braces, crutches, and walkers; demonstrate lifting and transfer techniques such as lifting a child from floor to chair and back, transferring child from wheelchair to bed and bed to wheelchair, and transferring child from wheelchair to chair and chair to wheelchair; list and describe (for the purpose of architectural planning) environmental adaptations such as railings, toilets, doorways, ramps, mirrors, wash basins, and furniture.

Performance Criteria. As determined by the institution and as evaluated to meet the criteria set by the supervisor.

Objective 2. The trainee will demonstrate knowledge of methods and procedures for management of a student having a seizure.

Performance Criteria. The trainee will write from memory ten points of the ten-point process for seizure management as outlined in a specific special education course.

Objective 3. The trainee will demonstrate the ability to utilize counseling, consulting, and classroom management techniques to cope effectively with the affective, interpersonal, and legal aspects of seizure management.

Performance Criteria. The trainee will perform the preceding to the mutual satisfaction of his master teacher and supervisor.

Objective 4. The trainee will demonstrate the ability to respond appropriately to seizures which may occur during his intern experience.

Performance Criteria. If a child in his class has a seizure, the trainee will perform the ten-point process as outlined in the designated special education course to the satisfaction of the school nurse, master teacher, and university supervisor.

AREA 3. COORDINATION OF SERVICES

Integrating other therapeutic procedures into the COHI program and working cooperatively with other professional and nonprofessional personnel.

Objective 1. The COHI trainee will develop effective public relations practices to secure needed services for programs and for students. He will answer provocative questions often asked by parents, citizens, and school personnel.

Performance Criteria. There will be a designated increase in the number of news releases, spot mentions on TV, positive written and verbal comments about the school by parents and citizens, and an increase in the amount of interaction of nonhandicapped persons with the children in the program.

Objective 2. Given one child and all available information about his capacities and deficiencies—academic, physical, and social—the trainee will develop a plan for placing that child with nondisabled peers.

Performance Criteria. The plan must include, as a minimum, the following components: the specific activity or activities to which the child will first be introduced; information for the regular class teacher concerning the child's capacities and deficiencies, plus any prosthetic adaptations which might be needed; criteria for determining success or failure of the placement; the basis for deciding when the amount of time or the number of activities should be extended. Evaluation of the

plan will be the mutual judgment of the practicum supervisor, the cooperating special class teacher, and the cooperating regular class teacher.

Objective 3. The trainee in the COHI field will identify and describe his role and the roles of others on the team in working with the child in order to assume his responsibility for the child's educational program. The trainee will gather information for the role descriptions from films, slides, written material, tapes, and conferences.

Performance Criteria. The trainee will accurately perform 85 percent of the tasks on a test chosen by team participants and evaluated, objectively and/or subjectively, by the team participants, the supervisory teachers, and others.

Objective 4. The teacher trainee will appropriately use records related to his pupils for other team members and the Board of Education and will accurately complete records under supervision during orientation and practice.

Performance Criteria. The degree of performance will be judged on the trainee's review of records, discussion of records, justification of records and/or recommendations for change, and communication of record data to parents and team members. Performance will be judged by the supervisor.

Objective 5. Each trainee will demonstrate to regular teachers that these children can take part in classroom and social activities with nonhandicapped children. He will provide opportunities for teacher observation, movies and demonstrations of these children's abilities.

Performance Criteria. Teachers will include the children in regular class activities.

Objective 6. Following a conference with the classroom aide in the presence of the master teacher, the student teacher will demon-

strate he can use the classroom aide's skills to increase the number of specified tasks completed with no help by his students, and decrease the amount of teacher time in preparing and managing materials for learning. Each trainee will define in his objectives what is to be accomplished by the aide and how it is to be accomplished.

Performance Criteria. The trainee will teach the aide to record on simple charts the frequencies of student attempts at defined tasks and to use stopwatches and record teacher time spent in specified nonteaching activities. Trainee performance will be acceptable if data on the charts show that after the aide follows trainee directions, student actions increase by a designated number over a specified period of time and the amount of teacher time spent in designated nonteaching activities descreases a designated amount over a predetermined period of time.

Objective 7. The trainee will provide opportunity for parent involvement by arranging home visits, observations in the classroom, conferences, and group parent meetings.

Performance Criteria. The trainee will meet the standard as determined by the institution and as evaluated by the supervisor.

The development of comprehensive set of behavioral objectives for COHI programs will require extended periods of time and close continuing communication among leaders, practitioners, and persons in related professional groups. Obviously, the accomplishment of such a task was not possible at the Tucson Conference. However, such professional activity should be undertaken and, hopefully, will be at some future date when proper conditions can be arranged.

Summary and Conclusions

The experience of actually developing behavioral objectives created in the conferees a growing awareness of the value of these objectives in defining attributes of teacher education. Inevitably participants were led to question teacher education programs in their home institutions. The following themes were highlighted in the group discussions.

1. Evaluation of teacher preparation for COHI programs in various frameworks: that of the total special education program, that of the general professional education program, and that of the 'liberal arts' program at the same training institution.

2. Inputs into the evaluation effort by current students, critics, COHI teacher educators, and related faculty, graduates of the COHI training programs, employers of these graduates, the training institution administration and staff, supportive personnel, and state and national accrediting agencies.

3. Examination of learning sequence content (including research materials), media, transfer of learning, assessment of actual performance of trainees in the field, and the relevance of the program at the training institution for performance in the practicum situation.

4. Continuing development of forms and procedures in the evaluation process.

Participants underscores the need for systematic planning in identifying the target populations for COHI programs. In doing so, they noted that the competencies needed to serve these populations have not yet been identified in an adequate and comprehensive manner.

It is generally acknowledged, for instance, that little has been done to define the competencies needed for educating multihandicapped preschool children in an interdisciplinary setting. The conferees agreed that definitions developed systematically from this effort should be applicable to inservice teachers as well as preservice teachers. It was also suggested that members of other professional groups work with educators in the development of competency-based objectives, thereby developing a mutuality of concepts and a deeper understanding of functional roles.

A cross-disciplinary integrated program for children who are crippled or otherwise health impaired requires a division of functions. In order to avoid confusing children or treating them atomistically, teachers need to be prepared to release some of their traditional duties to other team members and to assume some roles they usually do not perform. In no instance, however, are teachers or other team members to relinquish accountability for the quality of performance of the tasks which fall under their professional purview.

One of the conference outcomes was the development of a plan for improving the level of teacher education programs through the identification of teacher competencies with behavioral objectives. The plan was to be implemented as follows.

PHASE 1: DESCRIBING COMPETENCIES

During the first year of this effort, regional groups of leaders in the COHI field will use the three major competency areas listed in the West Point report (assessment, instruction, and use of related resources) as a starting point to define the role of the educator in COHI in a more systematic fashion than has been done in the past.

PHASE 2: REVISION OF COMPETENCY STATEMENTS

During this same year, representatives of the regional groups will work with teachers, related professional workers, paraprofessionals, parents, and others to refine these descriptions and to make the necessary revisions in them.

After the statements have been modified in accordance with the suggestions, they are to be prepared for wide distribution.

PHASE 3: APPLICATIONS TO EDUCATION

During the second year, the materials developed in Phases 1 and 2 will be used to educate superintendents of schools and directors of special education about the needs of children who are crippled or otherwise health impaired. The desirability of increased programming for these children in regular classes will be stressed along with with the relevance of the competency statements for teacher education programs.

PHASE 4: INVOLVING THE FIELD IN DEVELOPMENT AND IMPLEMENTATION

During the third year, using the same materials, educators of teachers in COHI and their trainees will educate others, including inservice teachers, to write behavioral objectives for the listed competencies, to implement these behavioral objectives, and to evaluate the outcomes of their attempts to achieve the behavioral objectives.

PHASE 5: IMPLEMENTATION IN REGULAR CLASSROOMS

Regular teachers and other school personnel will be prepared during the third year to implement the behavioral objectives in the regular school setting, to evaluate the results, and to feed back their evaluations to the leaders of the regional groups. In turn, the leaders would modify the statements of competencies and objectives that they had orginally prepared.

It appeared that the most efficient method for achieving consensus about competencies for educators is to have individuals submit their own sets of behavioral objectives to regional committees for revision to fit local conditions. It was suggested that regional meetings be held to which representatives of other disciplines, as well as educational administrators, would be invited for the purpose of reviewing the materials being developed.

Sources of assistance would include the Council on Exceptional Children, the United States Office of Education, and other professional, governmental, and community organizations. Such groups can provide information, arrange for continuing dialogue, provide channels of communication, and offer legal guidance. Throughout this total effort, the COHI teacher education programs would focus upon the preparation of personnel who are capable of developing and coordinating educational interventions early in the life careers of the disabled population, through an interdisciplinary service delivery system.

One more unexpected outcome of this conference developed as conference leaders saw participants' self-perceptions change. The diffuseness of objectives in the COHI field seen by its leaders had been perceived as well in the ranks of teachers and educators of teachers, who infrequently looked over the fence at teachers in service to other disabled populations. All too often, the comparisons they made were not entirely favorable to the COHI milieu. It sometimes has seemed to educators in COHI that their field is less well defined, less militant, less well organized, and perhaps, less dynamic than that of some of their fellow special education areas. Such negative comparisons raise questions in the minds of educators in COHI about the viability of this field and the social value of their commitment to it.

It was obvious to observers that conferences such as West Point and now, Tucson, could begin to provide the antidote for such feelings. For perhaps the first time teachers and other specialists within the field were able to share a sense of accomplishment as they worked together on mutual problems. No longer standing alone in search of identity and professional purpose, the participants seemed to draw emotional strength from each other and from the conference experience.

The general concluding statement, 'Implications for the Future' by Frances P. Connor (see Appendix A), called attention to the need for continued revitalization of leadership in the field of COHI. The fact that populations, educational approaches, and society at large are continually changing demand constant alertness in the ongoing assessment of current practice and future objectives in the education of COHI populations, especially those multihandicapped or severely handicapped.

Final Recommendations

As the Tucson Conference drew to a close, the conference leadership presented a tentative set of recommendations which had derived from the work of both the general and group sessions. This list was reviewed and revised by members of the Conference Advisory Committee and other leaders participating in the Conference. The result- and recommendations were presented to the Conference as a whole at the final session. At that time, a full discussion was conducted of each recommendation, revisions were made on the spot, and votes of acceptance or rejection were cast by the participants. The following recommendations, therefore, constitute the virtually unanimous view of those attending the Tucson Conference and may be regarded as guidelines for future action in the field of COHI.

Professional preparation of personnel in the field of the crippled and other health impaired can be identified by characteristic behavioral objectives that differentiate it from other areas of special education. In the future, it should continue to be regarded as a viable educational speciality.

The behavioral objectives and competencies recommended by this conference should be used as guidlines for the systematic development of a more comprehensive set of objectives and competencies for COHI.

This task of systematization should be carried out by a consortium of universities, school systems, institutions, and agencies and should be supported by funding at the Federal level.

The behavioral objectives and competencies developed by this consortium should be reviewed by state and regional panels as

well as by a third national COHI conference. Subsequent to to these meetings they should be considered national guidelines.

High-priority federal funding should offer incentives for the development of prototypic training programs which utilize competency-based behavioral objectives.

These prototypes should be evaluated by a cross section of practitioners in the field, together with other educational leaders using sophisticated measurement techniques and using the evolving behavioral objectives as an achievement criterion.

Prototype training programs which are favorably evaluated should serve as a basis for college and university efforts to improve COHI training.

A representative group of educators should be designated for the purpose of working with the government and the local community in the implementation of these recommendations.

One or more institutions should be asked to serve as a clearing house to coordinate post-conference activities, issue periodic bulletins and news letters, and initiate conferences and other COHI planning, implementations, and evaluation activities.

APPENDIX A

General Session Presentations

COHI and the Singing Telegram

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A Singing Telegram

The singing telegram refers to a story that I heard a long time ago. The story goes this way: There's a little old lady at home, alone in the house, and the doorbell rings. It's a boy with a telegram, and he says: "I have a telegram for you."

"Oh, isn't that nice? A telegram! I love telegrams! Is it a singing telegram?"

"No, it *isn't* a singing telegram."

"Are you *sure* that it isn't a singing telegram? I've never had a singing telegram."

"No, it isn't a singing telegram."

"Are you sure it isn't a singing telegram? I've waited so long for a singing telegram. Years, and years I've waited for a singing telegram."

"All right, all right, it's a singing telegram: Dah, dee, dah, dah, duh... Your sister Rose is dead."

There are some people who don't think that story is funny. And there are those who do. I have to sit down and analyze why anyone would think that story is funny. For one thing it deals with an expectation of something, something that we would like to hear. And then, we receive bad news in place of it. *Some* people would probably laugh because they were glad the obnoxious little old lady got what she deserved after making all that fuss. Whether the story is funny or not, it serves as an example for what I want to discuss today. This institute must deal with the possibility that special education can no longer be sure it's going to hear what it *wants* to hear. This conference may serve, then, to prepare us for what we might hear, and to react to it positively, even if "bad news" is involved. I understand that the learning theorists call such a process desensitization, and it's a very handy sort of term.

Tonight I wish to touch on three basic topics. First, I want to take a brief glimpse back to the West Point conference and what I feel were the reactions to it. Secondly, I want to take a hard look at the current state of affairs as I see it, and finally, I will discuss some of the implications which appear to me to be of concern to this institute and to the field of COHI in general.

A Review of West Point

When I talked to you at the West Point conference, we noted that the world of COHI has and is changing at the present time, and that we need to analyze the current state of the art. We discussed the need to ensure that our training programs are equal to the current demands being placed upon it, and the need to generate the research necessary to effect the changes required to keep the field

vital. We also recommended an updating or some reconceptualization of the field which will keep it relevant in the future.

Some of the questions which were posed in the West Point conference were:

1. Who are children for whom we have accepted responsibility?
2. What are their unique needs?
3. What special skills do the COHI teachers need?
4. How do we create an interface with the other disciplines serving the COHI child?
5. What are the most appropriate delivery systems that we might consider?
6. How do we evaluate our programs?
7. How can we upgrade and update our programs and our professional skills?

The West Point Conference, in my opinion, was a tremendously important step forward for the whole field of COHI. One of the immediate outcomes of that West Point Conference was that a number of people were pretty badly shaken up as a result. I don't mean that negatively, but I think it was a good opportunity to look at a total field and realize that other people were viewing it in a different way than we were. The majority of the participants felt real sense of change and revitalization, and I think that we began to formulate answers to some of the questions posed above. In fact, we began to ask even more penetrating questions than those, and we all felt that there was a need for an additional opportunity to explore these problems and questions at greater depth.

In regard to the first question—"Who are the children from whom we have accepted responsibility?"—we were exploring the parameters of the field. I felt that many people were confused, and at a loss to pull the field of COHI into one framework. Part of the confusion may be due to the great many historical factors that have

gone along with the development of the field. Partly, we have become confused by many outside forces, such as the certification requirement that many states have in relationship to this field, and the reimbursement patterns that are frequently imposed on the programs that utilize the teachers we're responsible for developing.

As a result of this confusion, I have tried to pull together some conceptualization of the parameters of COHI. I call this, in all humility, the Wyatt Sugar Cube (see page 45). You should not confuse this with the Guilford Mental Block, and incidently, I have no illusions that this model will make me famous as Guilford's model did.

First of all, you will notice that our sugar cube is laced with LSD: In terms of the Levels we're talking about, the Settings in which the education takes place, and the Degree of disability. One reason why I'm not going to become famous for this is that this model doesn't say anything about the kinds of educational or medical interventions that occur as far as the child is concerned. The medical interventions that are not represented here range from health care by the physician, physical therapist, the occupational therapist, and other similar health services. All come to bear on each of the cells within this model.

Another weakness in the model is that some of these cells are impossible to fill, or at least totally improbable, so there is a lack of consistency in the model. Other interventions that are not represented are those that have to do with ancillary services: the model says nothing of the psychological services required; it says nothing of the social work, or welfare, or vocational rehabilitation interfaces concerned; and it says nothing about recreational services.

More importantly, it doesn't say anything about the education interventions. It tells you nothing about the assessment, or the prescription that goes into providing an educational program. It tells you nothing about how to implement that program, or about the feedback, or the evaluation, or the modifications that are necessary in such programs. It tells you nothing about our responsibilities as far as prevocational and vocational training are concerned.

What it does, though, is to give us some idea of the kind of parameters we either accept or which have been forced upon us. As far as the "L" part of this is concerned, we're talking about the educational levels, and we start from preschool and go through primary or sheltered environment, or activity group-type situations; we go through intermediate or elementary or prevocational types of situations, and we go on through secondary, post-secondary, and vocational levels. You could even extend it to the university level. We, as a field, do relate and interact to all of those different levels.

So far as the ""S" part of the LSD goes, we're talking about the crippled or otherwise health-impaired children in regular class settings, in resource settings, in self-contained classrooms, in special day schools, in residential schools, in sheltered workshops, in hospitals, and in homes.

The degree of disability ranges all the way from terminal through severe multihandicap; severe single handicap; moderate chronic conditions; mild temporary disabilities such as a broken leg or a bad case of flu. In addition we have to consider those children who are thrust upon us merely because they happen to how up at home or in one of the aforementioned facilities.

We are seeing now children, addicted to drugs, who are not being accommodated in the public school system. They are on home instruction. And who is the teacher? It's the teacher in COHI! We're including unwed mothers, and epileptic children, who should not be at home or in these sorts of facilities, but, who in many instances, however, are denied admittance to school merely because they are subject to seizures, which may or may not always be controlled.

This model demonstrates some very artificial boundaries with which I think we have been saddled—and we've been saddled with them because we've been too willing to assume responsibility for that whole block.

What about the question regarding the special skills required? At West Point we began to make some real headway, and I think that when you have a chance to read the report, you will be very impressed. I think that it's going to be an extremely valuable thing, and I think that Fran Connor and Joan Wald and Mike Cohen are

certainly to be congratulated for bringing a real semblance of order out of what was a terrific amount of chaos. We have expressed a real desire to pursue this whole idea of the specialized skills to a much greater extent, and that's why we're here now. I think that it was perceptive on the part of the group to move in that direction, and it was particularly timely in view of the events which have followed since West Point, which brings us to what has happened since.

The Current State of Affairs

There is some evidence of renewal in this field. While I was still with the U.S. Office, I got a great deal of response from people around the nation–a great deal of positive response–and I began to see some real indication of people making a valiant effort to try to initiate and carry out research and projects that will have real merit and value. But let me say this, I think at the present time Special Education as a whole appears to be undergoing some very radical changes; and these have direct application for COHI.

1. First of all, it is apparent that Special Education is becoming as vulnerable to attack as regular education has been for some time. The emotional appeals that we have been able to use in the past are considerably less effective than they were. We are seeing more and more criticism of special education being generated from within the field in a way that is difficult to deal with. That is not to say that the criticism is right or wrong. I just say that it is occurring and is something of which we need to be aware.

2. Secondly, there is a greater tendency in the nation to resort to legal means to attempt to solve some of the problems with which we are confronted. The number of the suits that have been filed in California on behalf of minority groups and their placement in special education facilities have tremendous importance. The Pennsylvania case, with which I am sure you are all familiar, and which holds that no child can be denied the right to an education, is going to set a precedence and the implications are going to become extremely far-reaching.

3. Thirdly, there is a greater concern for the excluded child than there has ever been before. This is important to our

field since in many instances the excluded child has been our responsibility whether we like it or not. The position of Special Education is moving toward serving as an advocate for the child who is being excluded or denied educational opportunity. At the same time, this position is in direct conflict with some of the trends that we are beginning to see in regular teacher negotiations. At some point somewhere along the line, this conflict must be resolved, probably by the the legal means which I mentioned before. We should be aware of it, because we are frequently the recipients of the fallout that results from these kinds of conflicts.

4. There are techniques of behaviorism which have become allied with the systems analysis approach and have real implications for what is going to happen in Special Education. This has a direct relationship with the accountability movement, and the changes that are resulting.

5. There is increased evidence of societal changes that are going to be important for special educators. The fact that we are beginning to see reductions in the number of preschool children approaching school age (whether due to birth control, legalized abortions, women's liberation, or social reaction to the population explosions) may have a definite influence on what we will see in our field. The oversupply of regular teachers may create greater interest in acquiring special education preparation. The economic slowdown that is predicted may cause an increase in the taxpayer revolt which is already widespread and is beginning to affect us much more than ever before.

What may be the consequences of these developments? The advocates of educational accountability are finding a much wider audience than they have ever had before. They are beginning to be heard with a great deal of enthusiasm on Capitol Hill in Washington D.C. Congress is asking questions it did not ask before. Competency-based certification standards are very near reality. At least four or five states are on the verge of developing them, and I would expect that within the next year or two, you will see some competency-based certification standards in operation. Program evaluation, which we've been able to sidestep for a number of years, is becoming a very critical issue. We are not going to be able to avoid it any longer, even if we want to, and I don't think we want to.

The proponents of educational accountability argue that this will weed out the deadwood, so far as bad teachers are concerned. They also say that it is going to reduce the flurry of surface changes in the area of Special Education, and facilitate the implementation of fundamental change, whatever that is. They say that it is going to reduce inappropriate child placement, and permit better utilization of budgetary resources, as well as improve the delivery of services.

The opponents argue somewhat differently. They say, first of all, that it will fail because the current systems are not really tooled up for such changes and cannot react as rapidly as the demand dictates. The whole question of putting handicapped children back into regular classrooms, demands that those regular classrooms be prepared—the teachers properly trained and really capable of providing the needed services—otherwise it won't work. They are saying that the advocates of change have not really proved their case as yet, and that the changes that are advocated will not necessarily result in a better situation than we have at the present time. They are claiming, more interestingly, that the nature of the changes will mitigate against certain humanistic qualities. In Special Education people have prided themselves on being humanistic in their approach to children; but to put humanistic qualities on measurable output terms is an extremely difficult thing, and they are not sure they want to move in that direction.

What is the current state of affairs? As I see it, the current stage of affairs can be stated as: "Ready or not, here we come." There are some very powerful leaders in Special Education who are either covertly or openly adding their support to this effort, in good conscience. There are a number of other things in the offing, such as the teacher renewal centers which seem to me to provide an opportunity for a shift in the focus of training from the university and college setting to the state and local levels. The whole issue of retraining and updating—providing inservice instruction, and perhaps even preservice instruction, to teachers—is going to have to be viewed in respect to the implications of these teacher education centers.

The Bureau of Education for the Handicapped is in

many ways loading the dice in favor of noncategorical, competency-based training programs through a system of block granting. The block-granting technique may not be familiar to all of you. In the past, proposals came in separately for each category. Now they are asking for one proposal, from one university, so the funds can be distributed or shifted in any direction. It may or may not pertain to any categorical area. There are a number of people who feel, by the nature of this change, BEH is really attempting to promote a noncategorical approach to the whole area.

Implications for the Future

What are the implications of this for our institute and the future of COHI as a whole? I believe that we are faced with a very definite threat. If we in the field cannot or do not draw up definitive and measurable indices of competency that are relevant to the field, there are others far less capable than we are who will do it for us.

Secondly, if after due deliberation of the finest minds in the nation who are here right now we are unable to factor out, in sufficient quantity and quality, the unique competencies for our teachers and ldeadership personnel, then perhaps we should take the initiative and declare that we are no longer a legitimate categorical field and suggest a reformulation which will not sacrifice the interest of the children for whom we have always accepted responsibility.

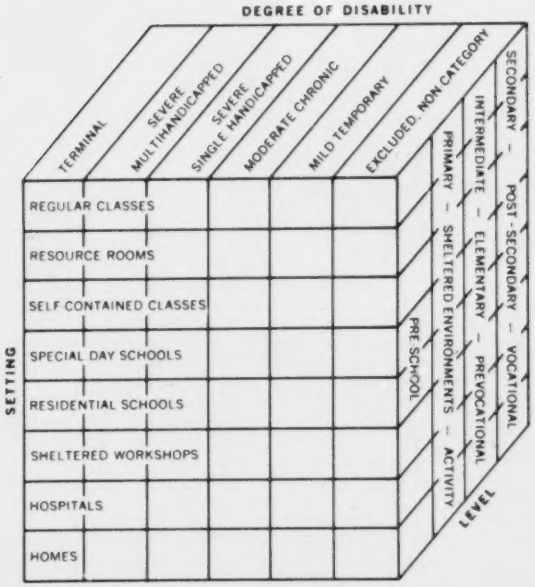
Thirdly, if after due deliberation, on the other hand, we do determine that such competencies exist and warrant the maintenance of COHI as a separate identity, we may wish to consider the ways and means by which we can continue the work begun here, and develop a vehicle whereby this professional group can continue and development can take place on a systematic and ongoing basis. One such vehicle might be something akin to a Leadership Training Institute, so we might consider this as a possibility for the future.

In conclusion, we have real reason to be proud of the progress that has taken place in the past year.

Nevertheless, there are significant changes taking place which have serious implications for Special Education in general, and for COHI in particular, which appear to mandate the development of competency-based training programs. COHI must determine whether this approach will strengthen its identity or will result in its merger with various other areas which may have similar competencies.

This then is my "singing telegram," and the next few days should help to determine whether or not the contents are welcome.

WYATT'S "SUGAR CUBE"



Implementation and Evaluation of Competency-Based Models

JOHN POTTS
Director
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Arizona State Department of Education, Phoenix

Legislators throughout the country are asking the question of educators: "What are you doing? How do you know you are doing it? Prove it!" More and more educators are being required to exhibit competencies in the production of students who achieve predetermined objectives. It is the product (students) that should be emphasized rather than the process by which they learn.

"Competency based" refers to the skill a teacher demonstrates that moves the learner toward a specific objective. The steps involved are:

1. To determine the goals to be accomplished.
2. To develop a sequence of objectives to reach the goal.
3. To individualize the program so the learner knows exactly what is expected of him.

This should be based on learning, not teaching. Teacher trainers must get into the schools to see if students are meeting the objectives as set by the training program.

Five questions pertinent to competency-based teacher certification and recertification are:

1. Can performance criteria be the sole basis for a certification program?

2. Is it logical to require a college degree for teachers? Unless we change our teacher training programs and show that course requirements are helpful and effective in meeting the objectives of the training program, it would appear unnecessary to require a college degree.

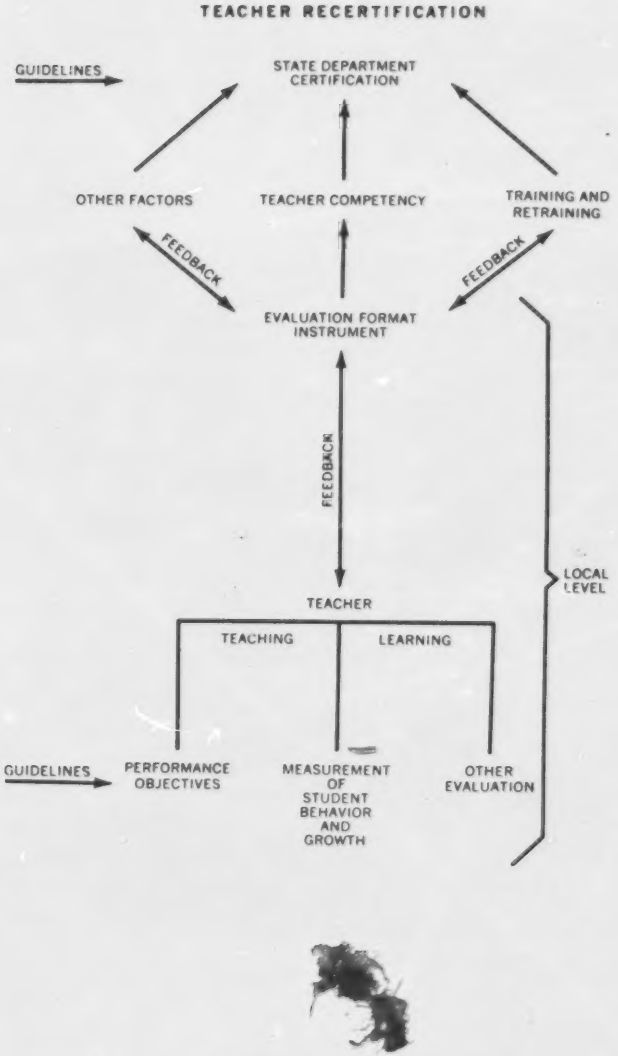
3. Can a State Department of Education establish a list of competencies acceptable as minimal performance standards? It is necessary for competencies to be established at the local level, in the district or in the school itself.

4. What criteria can be used to evaluate a competency-based certification program?

5. What are the obstacles in developing performance-based certification programs?

   a. enlisting teacher support
   b. coordinating various groups
   c. bringing together teachers, administrators, and universities.

In conclusion, it appears that teachers need to sequence their objectives and evaluate them with a constant instrument. In addition, we need to focus on the product rather than the process or else public education will be turned over to private enterprise. Finally, there is a real need for administrators to become instructional leaders.


TEACHER RECERTIFICATION
GUIDELINES
STATE DEPARTMENT CERTIFICATION
OTHER FACTORS
TEACHER COMPETENCY
TRAINING AND RETRAINING
FEEDBACK
FEEDBACK
EVALUATION FORMAT INSTRUMENT
FEEDBACK
LOCAL LEVEL
TEACHER
TEACHING
LEARNING
GUIDELINES
PERFORMANCE OBJECTIVES
MEASUREMENT OF STUDENT BEHAVIOR AND GROWTH
OTHER EVALUATION

Implications for the Future

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We begin by stating some assumptions:

There are children and youth with physical problems which interfere with and restrict motor function so that modifications of materials, equipment, and programs are necessary.

Jensen, who is recognized for his support of innate determination of abilities, has indicated that if young children are not encouraged to move about outdoors and to establish human relationships as participating peers, their intellectual, psycho-motor, and affective behavior will be severely affected. The implications for the crippled and otherwise health impaired seem evident. If the nurturing adults with whom these children and youth live, work, play and communicate do not respond to some of their unique needs, their problems will be augmented in number, degree, and kind.

Specialization should be supported only when it is essential to the quality programming. For example, feeding and other activities of daily living may be facilitated by teachers. These functions cannot easily be isolated from education. The more severely handicapped

youngsters or the multihandicapped require and should receive unique special education services. But, we as professional educators cannot fill all the special needs of this population. We must keep our eyes on the educational domains: we are accountable for the educational processes no matter who on the team performs these functions. Teachers may also be called upon, after specific instruction from other team members, to assume roles not usually theirs. Are the professional educators really aware of the necessary modifications? Can they determine the need? Can they arrange for—or provide—the essential adjustments? It is possible that the teacher might be called upon to position a child or monitor physical function, but under the direction of the professional worker qualified in the related field. For the child who is multihandicapped, there will probably be need for specialists in vision, hearing, PT, OT speech, pediatrics, orthopedics, and a number of others—you mention the specialties—and, many of these children need a variety of services. However, a simple addition of specialists, each doing his own thing, does not add up to a comprehensive program for the child with multiple disabilities.

Special Education can no longer continue to relieve regular teachers of their responsibilities for quality education of the crippled child, especially the minimally educationally handicapped. Nor can teachers afford to be turned off by the presence of crutches, locking and unlocking braces, or the need to assist a child in using a chalk board, wheel chair, or going to the toilet if necessary. Above all, the teacher needs to work out behavioral objectives that he personally is to meet if the child is to meet the performance criteria to the degree to which he is able. An organized approach to continuing and comprehensive education is basic to the move toward integration of the crippled and otherwise health impaired with other populations.

To attain the designated program objectives, teachers and other personnel require professional preparation that are competency-based.

The struggle for truth, through the expression, at times, of contradictory opinion, was apparent last year. Your concerns are even more obvious here. We have heard expressions of serious concern about special educa-

tional needs of infants and preschoolers, of the multihandicapped, and of teen-agers (college-bound or not).

We cannot assume that all teachers can work with the the total range of children we have considered: multihandicapped, in hospitals, in their homes, or in regular classrooms; or those who struggle to write and should be learning to type at 3, 4, or 5 years of age. We do not as yet know all the variables.

The educational problems yet to be solved are monumental, both qualitatively and quantitatively. We have a long way to go if these youngsters are to reach their educational and life potential; the options have to be more clearly spelled out and made available for serving these populations. As we learn more about the children's developmental needs and the means of providing appropriately for them, leadership personnel will require reeducation. Teachers in this field will demand supervisors, administrators, and college professors who are aware of the changing populations, versed in the growing bodies of knowledge applicable to this aspect of special education and skilled in the instructional techniques and materials to be employed in the educational settings. Integrally related to this professional renewal is a sensitivity to the changes and community movements which influence program development and, more specifically, the life of the disabled child and adult.

Procedures for Writing Objectives

TOM SNYDER
Special Education–Instructional Materials Center
University of Southern California, Los Angeles

Implicit in any viable educational program must be at least the capacities to:

1. Communicate with others about it,
2. Meet the requirements specified for it,
3. Evaluate outcomes for both students and community,
4. Redesign components found to be ineffective.

In order to develop these capacities in a way that is useful rather than merely wordy, educational planners are turning increasingly to methods based on a more straightforward us of the English language itself.

These methods, as developed by Mager, Lindsley, and others, simply recognize that some words are less ambiguous than others and can be used to prepare more precise statements about the behaviors we wish to help students and teachers develop. Further, when clear behavioral terms are used to state instructional objectives, they form a basis for judging whether (or to what extent) a program actually accomplished what its planners set out to accomplish. In this way, clear objectives support both the planning and evaluative processes.

The following pages contain several ideas that may be helpful as you wrestle with the problem of writing useful and workable objectives.

Some Hints on Writing Objectives

Most people feel a bit overwhelmed when first starting to work on objectives. A good way to recover is to read each suggestion on the following list, in turn, while working on your objective in between steps. Take a few minutes to relax, and by the time you have completed the list, your objective should be much clearer.

1. First, remember that you have been stating objectives most of your life. Sending someone shopping for you, asking for a particular wrench, or coaching an athlete are all based on some faith in yourself as a stater of clear performance objectives.

2. Avoid the trap of trying to form the objective completely in your head before writing. Fortune favors the bold!

3. If it is difficult to begin simply, you may be overly concerned with *how* the objective is to be reached, rather than sticking closely to what *outcome* (or behavior) is expected.

4. If you are still hung up, try stating the *problem* you are trying to solve, rather than the objective itself. Work on a statement of the problem in five words or less. You should not need many more words than that if there is only *one* problem.

5. Now write a brief simple-sentence statement of what is to be achieved. Qualifying and quantifying phrases can be plugged in between commas as you work out the details.

6. Write the statement so that it refers directly to a person or a specific group. Programs don't do anything. *People* do.

7. As you build in each qualifying phrase, refer back to your original goal. Insure that you are not being led away from the intent by the requirement to be more precise.

8. Try applying Ogden Lindsley's *Dead Man Test* to your behavioral terms: If a dead man can do it, it is not a behavior.

9. Work through the following checklist of characteristics for workable objectives.

Is the objective *pertinent* to the problem?
Are the events or behaviors externally *observable*?
Are they *measurable* or *countable* as well?
Is the objective *feasible*? Can it be met?
Is it *publishable*, in the sense of *public*?
Is there a clear *criterion* for performance level?
Have you stated a *time-frame* for its completion?

10. Avoid treating the foregoing suggestions as gospel. They are written on paper, not clay.

The Quality of Selected Verbs

Common Quality	*Better Quality*		
appreciate	*add*	*describe*	*omit*
familiarize	*alter*	*diagram*	*record*
plan	*compare*	*label*	*select*
realize	*count*	*match*	*write*
acquaint	*agree*	*kiss*	*stroke*
communicate	*invite*	*permit*	*thank*
understand	*join*	*react*	*vote*
verbalize	*list*	*state*	*match*
apply	*assemble*	*fold*	*recall*
combine	*brush*	*heat*	*switch*
discover	*carve*	*pour*	*trace*
	drill	*rub*	*wrap*

A Few Terms Defined

Activity — *Describes briefly, or consists of, what is being or will be done to meet some objective.*

Assessment — *Collection of quantitative data through sampling: of frequency data by counting, of continuous data by measurement.*

Competency	*Capacity, expressed in behavioral terms, for performing a specific set of tasks in order to meet some objective.*
Evaluation	*Act of investing assessment with judgements concerning the value of a process, product, or outcome, in terms of subjective human interests.*
Goal	*Long-range aim or purpose, usually presented in general terms; often vague and socially or politically oriented.*
Objective	*Reflects type and level of performance to be achieved, written in behavioral terms with performance criteria; incorporates time and quantitative expectations; basis for determining if an enterprise is or has been successful in meeting its stated goals.*
Requirement	*Specific condition to be satisfied, or statement of what is necessary to meet an expressed objective; preferable to the term "need" since needs, by their nature, exceed the capacity of the most ubiquitous program, while requirements may be established with the expectation that each must be met for performance to be considered successful.*

Just-for-Practice Task Sheet

What is to be accomplished?

By whom?

When or for how long?

Under what conditions?

With what tools or materials?

To what extent or degree of accuracy?

Judged how?

Any special features?

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APPENDIX C

Institute Plan

Working Format

Much of the work of the Tucson Conference was performed within small groups headed by leaders in COHI having in common current issues affecting children of a given age, having a given severity of disability. The range of interests is noted below.

Group A:	Preschool Mildly Handicapped
Group B:	Preschool Multihandicapped I
Group C:	Preschool Multihandicapped II
Group D:	Elementary School Mildly Handicapped
Group E:	Elementary School Multihandicapped I
Group F:	Elementary School Multihandicapped II
Group G:	Secondary School Mildly Handicapped
Group H:	Secondary School Multihandicapped I
Group I:	Secondary School Multihandicapped II

Functioning under assigned chairmen and co-chairmen and assisted by graduate student recorders from the University of Arizona Special Education Program, the groups addressed themselves to the selected conference issues. The first of these issues was the review of the teacher competencies suggested at the West Point Conference. Each group developed a statement of competencies in conjunction with its initial training experience in techniques of writing behavioral objectives. Each group's concern with a different population resulted in somewhat different competency lists; each geared toward an age group and a degree of handicap.